

HARVEST HEROES!



THE ROBUST* ROOTS & TUBERS

*rō'best - strong and healthy; vigorous

How to Complete the Network Time Log

(This is a government approved form, need we say more?)

Please honor the requirements, or we will all suffer, as may our funding:

- 1. Complete all sections. This really should be quick!**
(If you make a mistake, just cross out, and do not use white out.)
- 2. Please submit your completed time log at the end of each month to:**
 - a. Your Site Lead Teacher (SLT) at your school, or,
 - b. If no SLT, via district mail to Nutrition Services, Attn: Kristin Fyfe
- 3. If you are also completing a time log for East LA College Nutrition Network, hours recorded here cannot also be recorded there. Do not duplicate hours.**
- 4. Questions? Contact us anytime – we want to support you!!**
Call us: x7967, x7966
E-mail us: mattson_piper@montebello.k12.ca.us, or fyfe_kristin@montebello.k12.ca.us
- 5. THANK YOU for your patience, diligence and understanding.**

EXAMPLE

WRITE IN INK ONLY, NO PENCIL					
1. Name _____		WRITE IN ONE MONTH ONLY.			
Please print: First _____ Last _____					
Job Title _____		School/Location _____		Month _____	

2. Time					TOTAL HOURS ONLY; DO NOT WRITE "HOURS."
WHOLE HOURS OR IN INCREMENTS OF .25 HOURS IN DECIMAL FORM ONLY.					
Week 1	Week 2	Week 3	Week 4	Week 5	MONTHLY TOTAL
Indicate number of hours per week and month—record time in 15 minute increments in decimal format (.25, .5, .75 for partial hours)					

3. Signature					
I certify that documented time is from Allowable Activities listed at the bottom of this page.					
Signed _____			Date _____		
SIGN AND DATE (IN INK) AFTER MONTH END. DATE SIGNED MUST BE AFTER LAST DATE OF WEEK WITH RECORDED TIME.					
FOOTNOTES: SEE OTHER SIDE FOR ALLOWABLE ACTIVITIES					
PLEASE TURN IN AT THE END OF THE MONTH TO SITE LEAD TEACHER (SLT) OR NUTRITION SERVICES (IF NO SLT).					

CONGRATULATIONS!

You are doing your part to preserve nutrition education funding at MUSD.

FOR OFFICE USE ONLY:

Montebello Unified School District—Contract # 06-55103

☐ State Share (Non-*Network* funds)☐ Federal Share (Network sponsored activities)

Project Coordinator: Piper Mattson, x 7967

Network for a Healthy California

Time Log 2009-10

1. Name _____ Grade _____

Please print:

First

Last

Job Title _____ School/Location _____ Month _____

2. Time

Week 1

Week 2

Week 3

Week 4

Week 5

MONTHLY TOTAL

Indicate number of hours per week and month—record time in 15 minute increments in decimal format (.25, .5, .75 for partial hours)

3. Signature

I certify that documented time is from Allowable Activities listed at the bottom of this page.

Signed _____ Date _____

FOR OFFICE USE ONLY: Supervisor/Designee Signature _____ Date _____

PLEASE TURN IN AT THE END OF THE MONTH TO SITE LEAD TEACHER (SLT) OR NUTRITION SERVICES (IF NO SLT).

Allowable Activities

Nutrition Education in a Classroom/Group Setting (children/adults):

- Nutrition education classes using approved resources (e.g., Dairy Council, Team Nutrition, Dietary Guidelines for Americans, Harvest of the Month).
- Read books on nutrition or encourage artwork or essays on topics of nutrition, e.g., the importance of fruits and vegetables.
- Conduct cooking classes and/or taste tests with healthy foods as part of a nutrition education lesson/activity (e.g., Kids Cooking Week).
- Teach nutrition via CD ROM/ Internet/computer programs.
- Teach nutrition education as a stand alone subject area or integrated with core subjects.

Children/Student Nutrition Education outside a Classroom Setting (as a component of a structured curriculum):

- Participate in nutrition education field trips (do not include transportation time or costs) such as tours of farmer's markets linking nutrition education on fruits and vegetables in classroom with field trip visit.
- Garden-based nutrition education
- Cafeteria-based nutrition education activities/promotions which are part of a structured program that is connected to classroom instruction (e.g., Harvest of the Month, Welcome Back).

Nutrition Education at Special Events (students/adults):

- Nutrition education at special events (e.g., Open House, health fairs, school assemblies, Library Nutrition Events).
- Physical Activity Promotion (as a component of a broader Nutrition Education intervention) (children/students/adults)
- Promote increased physical activity as a component of a nutrition

education intervention.

- Give advice on where to access low- or no-cost physical activities.
- Present one-time physical activity demonstrations that educate about and promote physical activity.
- Nutrition Education Project Evaluation:
- Conduct program planning and evaluation as an essential part of developing/implementing effective nutrition education programs

Nutrition Promotion Activities:

- Disseminate/sponsor newsletters, videos, CDs, or web pages on good nutrition or physical activity integrated as part of nutrition education
- Provide brochures or posters that focus on nutrition and may include a Food Stamp Program promotion message.
- Set up nutrition displays (e.g. Harvest of the Month or My Pyramid posters with pictures of fruits and vegetables with nutritional messages).

Staff Training/Professional Development:

- Develop/attend nutrition education events such as workshops, conferences, seminars, trainings, which may include the role of physical activity plays in health, and provide clear and direct benefits to the food stamp audience being served and are within the activities of the SOW.

Administrative Tasks Related to the Network Contract:

- Spend time completing documentation for the Network contract (e.g. progress reports, monthly time logs).
- Perform general clerical tasks in support of Network projects (e.g., travel claims, photocopying)

Other Activities:

- (Must be listed in approved Scope of Work Project Summary)

Approved format 04/02/08

EVALUATION

OCT 2009

ROOTS & TUBERS

Teacher Name (first & last): _____ School: _____ Grade: _____ Date: _____ # Students: _____

Please answer the following questions to help us better serve nutrition education needs in the classroom. **When complete, please forward this, along with completed TIME LOG to Nutrition Services by OCTOBER 31st** Thank you. Funding of this program depends on both forms being completed.

General Questions

1. How much time did you spend on this nutrition unit? _____ hours
2. Do you send the parent newsletter home? _____
3. Do you hear from parents about this program? _____

Packet Contents

	1	2	3	4	5
Packet length					
Usefulness of background info (Top Secret Info., Grow-etry poem)					
Utility of suggested teaching timeline					
Student activities useful and grade-appropriate					
Effectiveness at integrating other content areas					
Favorite components? Write in: _____					

Nutrition Concepts Emphasized

	Yes	No
Importance of fruits and vegetables		
Nutrients of featured produce		
Trying new foods		
Seasonality of produce		
Identifying varieties; distinguishing among fruits/vegetables		
Balance and moderation in diet to reach nutrient goals		
Other? Write in: _____		

Behavioral Outcomes Observed

	Yes	No
Students are more willing to try foods		
Students are asking parents to try foods/buy fruits, vegetables		
Students want to know more about fruits and vegetables		
Students are talking to their peers about healthier alternatives		
Students are noticeably eating more fruits, vegetables at school		
I don't notice any change in student behavior		
Students are becoming more negative about fruits, vegetables		
Other? Write in: _____		



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TEACHING SUGGESTIONS

WEEK 1: Oct 1-9

1. Students will likely be unfamiliar with some of the roots and tubers. Show enclosed photos (pages 11-22) to orient them with how they grow, and to help with recognition; select details to share for each type, located on THE ROOT FAMILY and THE TUBER FAMILY (pages 6-9).
2. Students can help to define roots and tubers with a Circle Map® (LET'S DEFINE ROOTS & TUBERS, page 2) or a KWL Chart. Was some of this information derived from personal experience? (Students can also add to Circle Map® over next few weeks.).
 - A Double Bubble Map® can be used to COMPARE ROOTS & TUBERS, page 11.
3. Read GROW-ENTRY poem, along with other details about roots and tubers on the TOP SECRET INFO. pages.
 - Discuss the following nutrients: vitamins, minerals, carbohydrates, and water; all are items which our body needs to grow healthy AND all are obtained from food.
 - Examine what it means for a fruit or vegetable to be at its peak season.
 - Add learned items from these pages to the Circle Map®.

WEEK 2: Oct 12-16

1. COLOR THE... (CARROTS, POTATOES, RADISHES, TURNIPS) pages 2-5.
 - Even older students can have fun coloring these black and white line drawings of these root and tuber vegetables that are in season now. Fruits and vegetables, like these, have vitamins, minerals, and water that help our health.
2. 'TIS THE SEASON, on page 23 will help reinforce eating fruits and vegetables in season.
 - Emphasize peak season of roots and tubers (fall), sharing the benefit of having different fruits and vegetables of different peak seasons (see TOP SECRET INFO.).
 - While not all the fruits and vegetables in season may appeal to the students, the wide assortment of varieties to choose from makes it easy to find something they like.

WEEK 3: Oct 19-23

1. Conduct TASTE TEST this week; utilize USE YOUR SENSES worksheets (pages 28-32).
2. After the tasting, add the experience to the Circle Map® created in week 1. Compare feelings before and after the taste tasting using different colors.
3. Discuss other ways to eat roots and tubers and obtain their nutrients (VARI"EAT"Y, page 24).

WEEK 4: Oct 26-30

1. Have students create a root or tuber vegetable poem, VARI"EAT"Y: HAIKU page 25.
2. Students will get a taste of the historic role of roots and tubers with the comprehension activity, ROOTS & TUBERS: BACK IN THE DAY, page 26.
3. Students can take a PARENT NEWSLETTER home, page 33.
4. Complete TIME LOG and EVALUATION (found on the first pages of this packet). Please forward to Nutrition Services by the end of the month. Thank you!

CORE MESSAGES

Every month, we will provide core messages here that build upon prior months' to help expand students' nutrition knowledge.

Following are this month's messages (refer to the TOP SECRET INFO pages for further explanation of selected concepts):

1. **Fruits and vegetables are most available during their peak season.**
2. **We need fruits and vegetables in our diet, but there are varieties each season from which to choose.**
3. **Fruits and vegetables contain both vitamins and minerals, (including water) which are all categories of nutrients.**



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TOP SECRET INFO.

Growetry

GROW-ETRY

When you want to find a part of the plant,

That's not a leaf, or a stem or a flower...

You have to dig, to the part underground,

That anchors it and stores the power...

Because the roots and the tubers store the plant's sugar and starch,

And that's energy in the form of carbohydrate...

That fuels a plant, storing energy from the sun,

And is energy for us, in a raw or cooked state...

Potatoes, turnips, jicama and rutabagas,

Provide nutrients our bodies need to stay strong...

French fries even offer a bit of nutrition,

But the frying and added fat leads some to label such foods as "wrong"...

These vegetables are great sources of vitamin C,

With iron, a mineral, to boot...

Turnips even have a bit of calcium to offer,

That's a good reason root out a root!

They are harvested in autumn, though they store well after harvest,
And many grow in poor soil, that's a plus...

For they offer potassium and iron and more,

These meek vegetables feed the world, including us!

A root is the plant's route to nutrition,

A tuber is on a somewhat different mission...

But nutrients abound in each type of vegetable,

Providing people through the centuries with food on their table...

Turnips and jicama can be eaten raw,

But potatoes and rutabagas you'll cook...

You can find numerous ways to prepare roots and tubers,

Just open any recipe book!

The Born "Robust" Identity

Roots and tubers are indeed robust,

They are hearty and sturdy and stout...

They are hale at harvest,

In fall at their best,

But their vigor helps them last throughout!

ROOTS & TUBERS FILE

Montebello USD: The Altruistic Apples

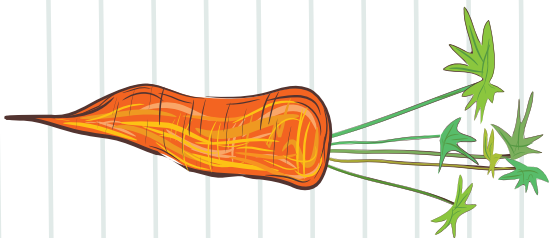


TOP SECRET INFO.

UNSUNG HEROES

Roots and tubers have never been very fashionable; believe it or not, they were actually seen as peasant food because of their use by the poor. But roots and tubers have been a valuable part of the human diet throughout history, in different climates... where it is warm, like Africa, the Caribbean, and Polynesia; and in other places where it is cold during the long winter season. Why have they been so important?

- they are inexpensive to produce
- can grow well in poor soil
- keep well, and can be stored for longer periods of time
- supply carbohydrates (energy) necessary for survival



AT THEIR PEAK

Most fruits and vegetables have a different "peak" season—the best time of year to be eaten for taste (and expense). Having different peak seasons is good, because some fruits and vegetables may be higher in certain nutrients, and lower in others. Eating a variety of seasonal fruits and vegetables helps us to receive all the nutrients needed for our bodies to function and grow in the way they are meant.



WHAT ARE VITAMINS & MINERALS?

Vitamins and minerals are necessary substances found in foods we eat. Your body needs these two nutrients in order to work properly, so you grow and develop just like you should. Each one has a special role to play.

Q: *Aren't vitamins pills?*

A: While vitamins are available in the form of pills, we can obtain all the vitamins our bodies need by eating a balanced diet consisting of all the food groups.

Q: *Aren't minerals something you find in the earth?*

A: Minerals are found in the earth. And fortunately, small amounts of some minerals are also available to us in foods. Just like vitamins, minerals help your body grow, develop, and stay healthy.

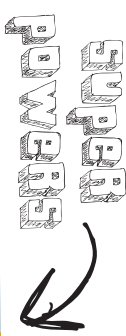
TOPS AND BOTTOMS?

Both the enlarged root and tops of the root vegetables discussed in this packet can be eaten. Although, turnip and beet greens are most commonly consumed.

SNAPSHOTS INSIDE



flip these pages to learn about the root and tuber...



ROOTS & TUBERS FILE



TOP SECRET INFO.

SUPER POWERS

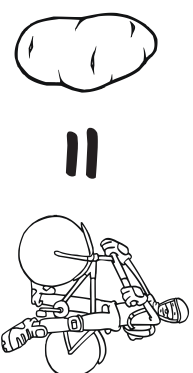
“CARBS”
CARBOHYDRATES

The food we eat gives us the fuel we need to walk, lift a backpack, and to grow. Fruits and vegetables provide carbohydrate energy in the form of starch or sugar.

Once this carbohydrate is eaten, our bodies convert it to energy for our muscles and other tissues. A “calorie” is how we measure “food energy.”

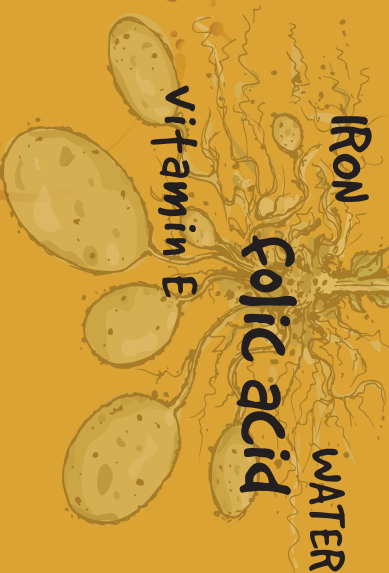


8 baby carrots fuel you with 28 calories of energy... enough for an 8 minute walk!



90% of a plain, 3 1/2" baked potato's energy comes from carbohydrates... that means energy for 30 minutes of biking!

Vitamin A
Vitamin C
Iron
Calcium
Potassium
Fiber
WATER
Folic acid
Vitamin E

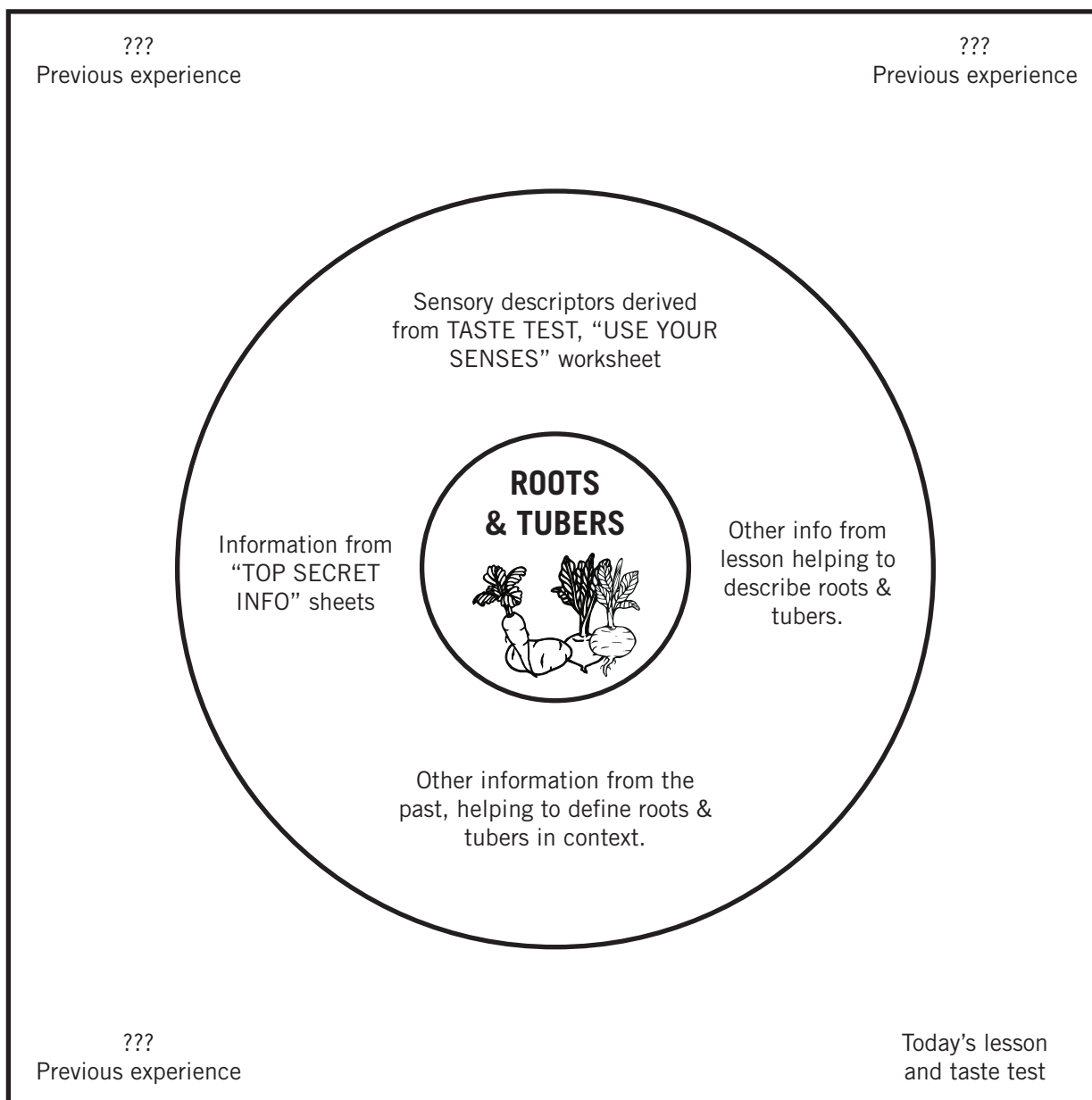


ROOTS & TUBERS FILE



LET'S DEFINE ROOTS & TUBERS

EXAMPLE CIRCLE MAP®



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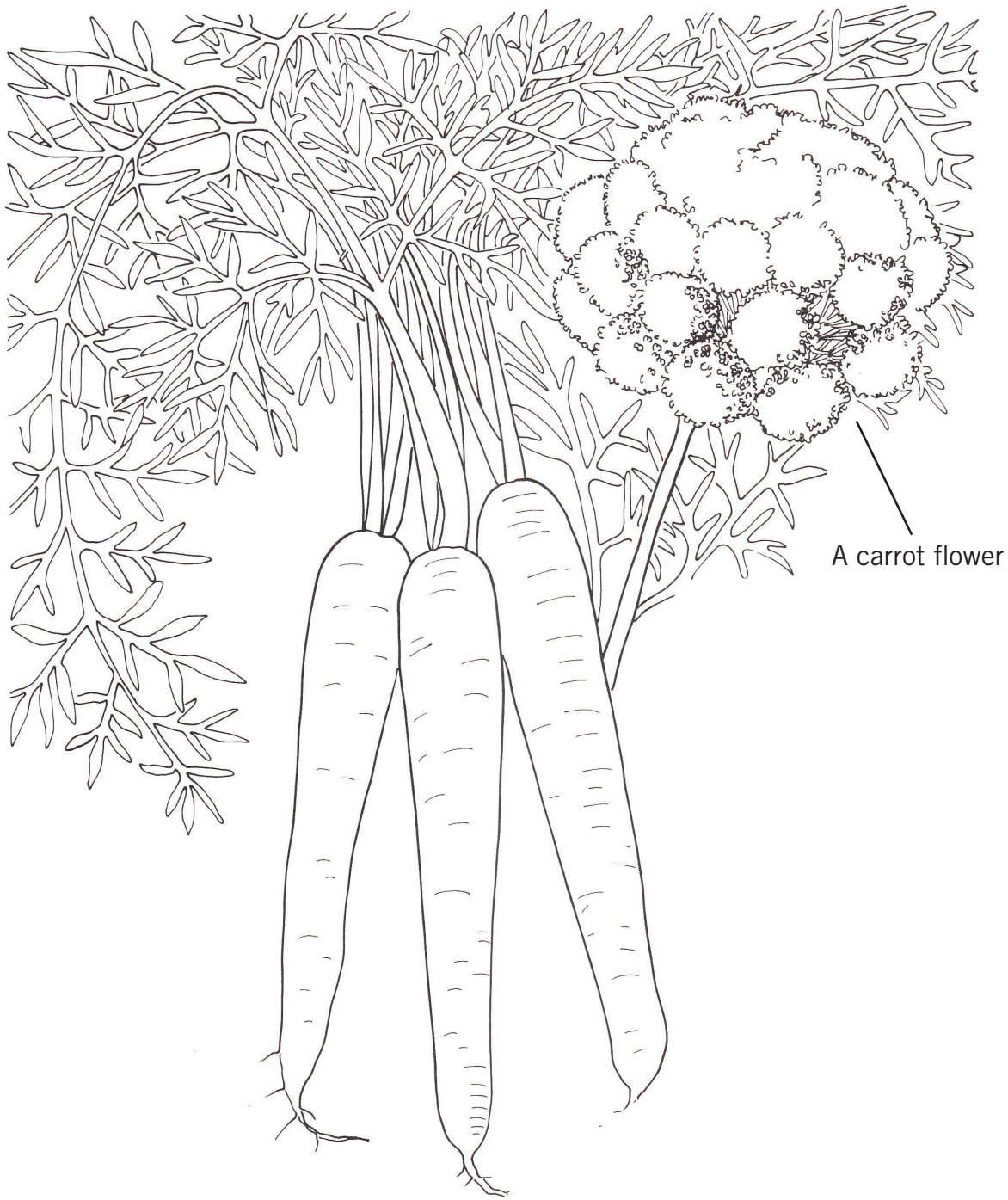
ENG LANG ARTS CONTENT STANDARDS

7th: Reading Comp 2.3
8th: Reading Comp 2.3, 2.4



COLOR THE CARROTS

A carrot is a root.



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COLOR THE POTATOES

A potato is a tuber.



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COLOR THE RADISHES

A radish is a root.

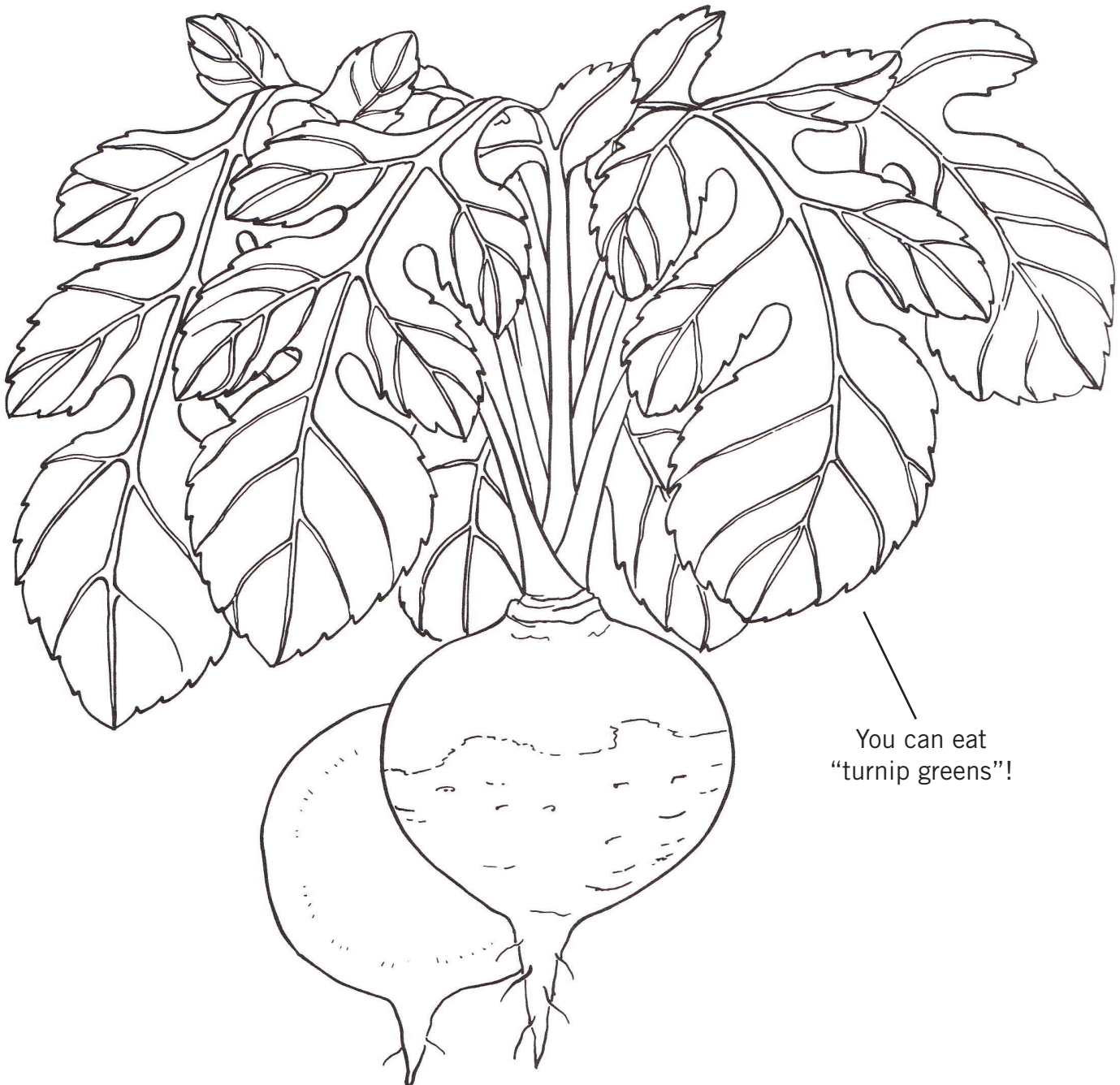


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COLOR THE TURNIPS

A turnip is a root.



You can eat
"turnip greens"!



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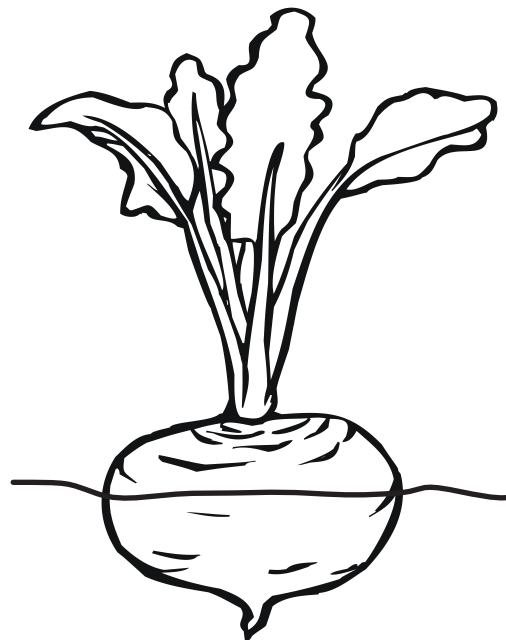
THE ROOT FAMILY

What's a ROOT VEGETABLE?

Roots are parts of a plant that usually grow downward, anchoring the plant into the ground where they absorb moisture and nutrients. *Root vegetables* are the roots of plants that are edible, and supply nutrition.

Much of the root on these plants is underground, but the top portion can be seen above ground on most (sweet potatoes, however, grow completely underground).

Common roots that we eat are listed below and on the following page. While carrots and radishes can be eaten raw, root vegetables are usually eaten cooked.



RUTABAGAS

- **SUPER POWERS:** vitamin C, potassium, fiber, water
- **COLOR:** skin is yellow at bottom, purple at top (the top grows above ground, getting sunlight, but the lower part buried underground, doesn't); yellow flesh
- **SHAPE:** rounded, but irregular
- **FLAVOR:** mildly sweet
- **WAYS TO EAT:** mashed, cubed in soups/stews, or oven roasted with spices
- **DID YOU KNOW?** Rutabagas are a cross between a turnip and a wild cabbage. (This picture of the rutabaga has the green tops and root tips cut off.)



TURNIPS

- **SUPER POWERS:** vitamin C, fiber, water
- **COLOR:** skin is white at bottom, purple trimming at the top; flesh is white
- **SHAPE:** usually round, larger at the top
- **FLAVOR:** a little sharper than a rutabaga, but still sweet
- **WAYS TO EAT:** eaten just like rutabagas
- **DID YOU KNOW?** Their green tops are often eaten; they're called "turnip greens"



THE ROOT FAMILY

BEETS

- **SUPER POWERS:** iron, potassium, folate, fiber, water
- **COLOR:** usually dark red, but also gold, white, and striped
- **SHAPE:** round, tapered at bottom
- **FLAVOR:** sweet, “earthy” flavor
- **WAYS TO EAT:** oven roasted; used in salads; substitute grated peeled raw beets for carrots in a carrot cake; canned beets also delicious
- **DID YOU KNOW?** Both root and leaves are edible, but in ancient times, only the green part was eaten. The beet roots looked different and were used as medicine for headaches and toothaches.



RADISHES

- **SUPER POWERS:** vitamin C, potassium, fiber, water
- **COLOR:** typically red, but also white, black, yellow, and purple; white flesh
- **SHAPE:** round, oval, oblong or long
- **FLAVOR:** some mild, some pungent with a sharp bite
- **WAYS TO EAT:** popular raw in salads, potato salad, stir fries, sandwiches, tacos, and shredded in slaws; their green tops add a peppery taste to salads
- **DID YOU KNOW?** While they may look like the smallest of the family, some can be the size of a basketball, or over two feet long!



CARROTS

- **SUPER POWERS:** vitamin A, fiber, iron, vitamin B6, water
- **COLOR:** orange is most popular, but can also be purple, yellow, white and black
- **SHAPE:** elongated, triangular
- **FLAVOR:** mildly sweet
- **WAYS TO EAT:** baked carrot “fries,” soup, cake, pitas/wraps, salads, stir fries, and raw
- **DID YOU KNOW?** British soldiers used to gobble them down in the hopes of improving their night vision.



PARSNIPS

- **SUPER POWERS:** carbohydrates, folate, vitamin C, vitamin E, fiber, water
- **COLOR:** cream
- **SHAPE:** like an irregular carrot
- **FLAVOR:** mildly sweet
- **WAYS TO EAT:** mashed like potatoes; soups/stews; oven roasted
- **DID YOU KNOW?** Parsnips spend a long time in the ground before we enjoy them. Planted in the spring, they take 3-4 months to mature. Then they’re left underground until the first hard frost in the fall; this helps transform the starches to sugars, creating a sweet, nutty flavor.



SWEET POTATOES: “DRY FLESH”

- **SUPER POWERS:** carbohydrates, vitamin B6, fiber, water
- **COLOR:** tan skin and flesh
- **SHAPE:** irregular, typically pointed at ends
- **FLAVOR:** dryer and starchier than “moist flesh” sweet potatoes; more similar in texture to regular potatoes
- **WAYS TO EAT:** try mashed or as baked sweet potato “fries”
- **DID YOU KNOW?** Sweet potatoes are NOT yams (see *The Tuber Family* for information about true “yams”).



SWEET POTATOES: “MOIST FLESH”

- **SUPER POWERS:** carbohydrates, vitamins A, B6, E; water; and fiber
- **COLOR:** dark, red-brown skin and an orange flesh
- **SHAPE:** irregular, typically pointed at ends
- **FLAVOR:** more sweet and succulent than “dry flesh”
- **WAYS TO EAT:** mashed; in pies; baked sweet potato “fries;” mixed in hamburger meat; canned
- **DID YOU KNOW?** We commonly use the term “yam” when referring to moist-fleshed sweet potatoes. But true yams are a different vegetable (see next page).



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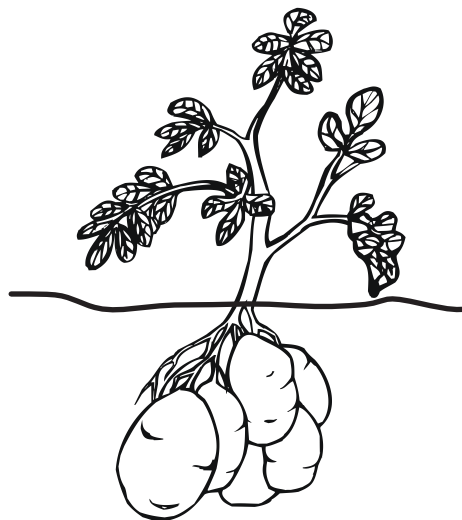
THE TUBER FAMILY

What's a TUBER VEGETABLE?

Tubers form at the base of roots and are the swollen tips of stems that grow underground.

They store energy in the form of carbohydrates to support new stem growth for the plant.

Common tubers that we eat are listed below. While jícama can be eaten raw, root vegetables are usually eaten cooked).



POTATOES

- **SUPER POWERS:** carbohydrates, vitamin C, iron, fiber
- **COLOR:** different skin colors, from yellow and tan to blue and purple
- **SHAPE:** can be round, oval, oblong
- **FLAVOR:** not much flavor on its own, but cooking and seasoning helps the flavor
- **WAYS TO EAT:** mashed, baked, roasted, boiled, soups, salads, and of course, fried
- **DID YOU KNOW?** World populations have depended on this vegetable from South America for survival. When crops were unsuccessful in Ireland in 1846, nearly 1/4 of the people starved to death.



JÍCAMA

Pronounced "hee-kuh-muh"

- **SUPER POWERS:** vitamin C, fiber, water
- **COLOR:** thin, tan skin with a cream-colored flesh
- **SHAPE:** similar to a turnip, but can be very irregular
- **FLAVOR:** bland, but crisp and juicy; texture is similar to an apple
- **WAYS TO EAT:** popularly eaten raw slices/sticks, sprinkled with lime juice and chili powder, or added to salsa or salads
- **DID YOU KNOW?** Jícama is a name derived from Nahuatl xicama or xicamatl, a name the Aztecs gave to several edible roots.



YAMS

- While the word "yam" is used to identify moist-fleshed sweet potatoes in the US (on left in the picture), true yams come from a different group of vegetables (on right in the picture).
- Since both terms are used by the public, the USDA requires that the label "yam" always go with the word "sweet potato" (adding to the confusion!)
- Yams have a scaly and rough skin; color ranges from off-white to dark brown and can grow to be much larger than sweet potatoes (an African species called elephant's foot can weigh up to 700 lbs!)
- Rarely available in the US, though they are popular in South and Central America, the West Indies, many Pacific islands, and parts of Asia and Africa.

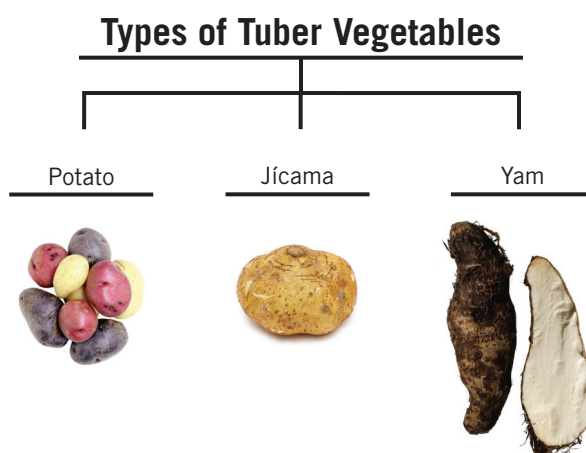
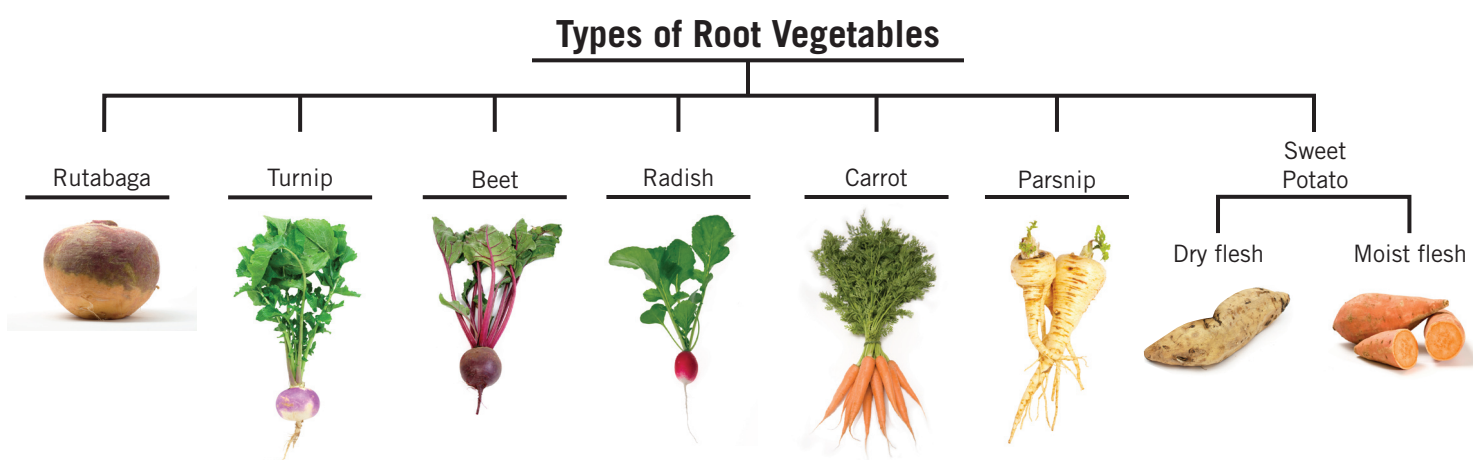


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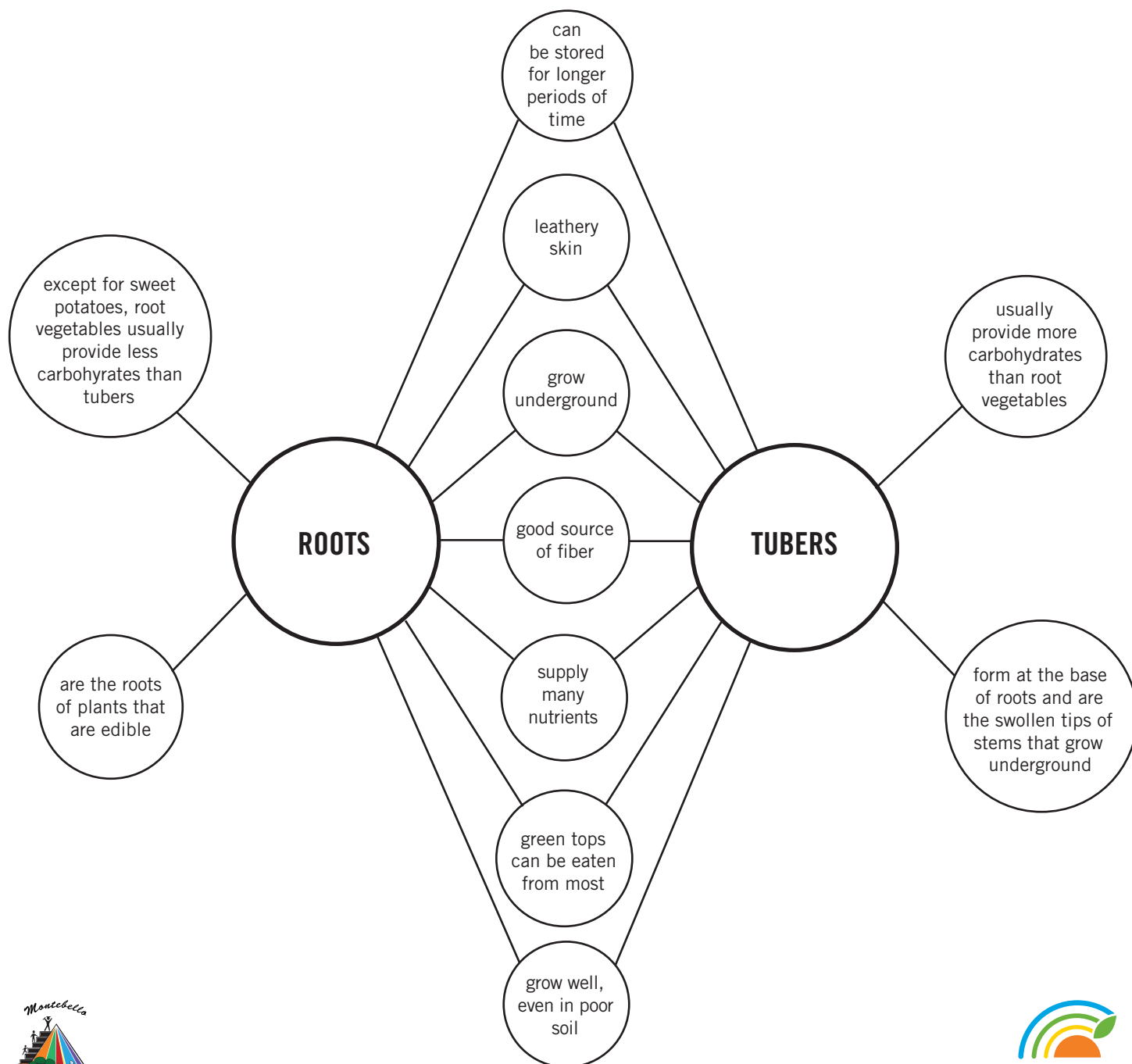
ROOTS & TUBERS: FAMILY TREES

EXAMPLE TREE MAPS®



COMPARE ROOTS & TUBERS

EXAMPLE DOUBLE BUBBLE MAP[®]



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root vegetables grow underground

(When the tops of turnips and rutabagas are exposed to the sun, they become purple, while the bottom stays white.)



tuber vegetables grow underground



rutabaga

(Shown here with bottom tip of root, and green tops cut off.)



turnip

Which part grew above ground? Below ground?



beet



radish



carrots



parsnips



sweet potato

“dry-fleshed”



sweet potato

“moist-fleshed”



potatoes



jicama

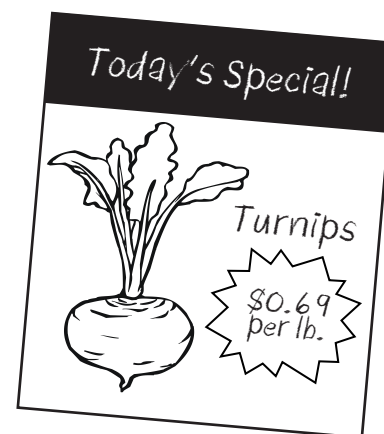
'TIS THE SEASON



Buying local, California-grown produce during its peak season not only tastes better, but is also less expensive than buying it at other times of the year.

ACTIVITY IDEAS:

1. Visit your local produce market, and grab one of the fliers with all the specials listed. What fruits and vegetables are on sale right now? If they say "California-grown" and they're on sale, they're probably in season now. Compare the price per pound of these featured specials with the price per pound of fruits and vegetables that are not on sale. How does the price of the fresh produce on sale compare to its frozen or canned counterpart? How does the flavor compare?
2. This month, you've learned a lot about roots and tubers: the different types, the nutrition they provide, when they're in season, how they're eaten, and the role they've played in history. Unfortunately, not everybody else knows about roots and tubers though! So, your local grocer needs your help to sell these unsung heroes. What will appeal to the customers? Taste? Nutrition? Price? Recipes? Uniqueness? On a sheet of paper, come up with a print ad to help promote any one, or all, of these robust vegetables.



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ENG LANG ARTS CONTENT STANDARDS

7th: Reading Comp 2.1, 2.2, Writing Strategies 1.2
8th: Reading Comp 2.3, 2.6



VARI“EAT”Y

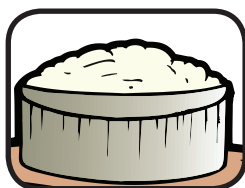
DIRECTIONS:

1. As a class discuss the variety of ways to eat roots and tubers. Have they tried any of these ways?
2. For more suggestions on how to eat a variety, visit www.fruitsandveggiesmorematters.org > click on the “Cooking” Tab at the top > click on the “Fruit & Vegetable Recipe Search” link on the left side of the page > type in the Keyword Search box a name of a root or tuber vegetable. From the recipes that pop up, pick out a recipe that sounds appetizing, and either:
 - A) make it and report to the class about it, or
 - B) draw a picture of it, and write about why it sounds delicious.



Soups/stews

Not only adds great texture and flavor, but the starch can help to thicken it.



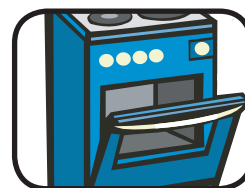
Mashed

And not just potatoes... carrots, parsnips, sweet potatoes, rutabagas, and turnips can be mashed too.



Boiled

Just peel, chop, add some spices, boil, and voila!



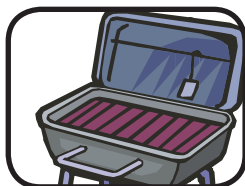
Oven-roasted

Baking them in the oven helps bring out their natural sweetness. Add an herb like rosemary, some salt and pepper, and you're in for a treat!



Salads

Radishes, carrots, beets, potatoes, and jicama are most common.



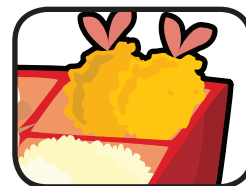
Grilled

The grill isn't just for meat. Hearty vegetables like these are great on the grill. Just slice into thick or thin “fries,” season with salt, pepper, and oil and grill until tender.



Stir fries

The firmness of root vegetables provides great texture and flavor. Carrots are most common, the texture of other roots and tubers make them a great substitute or addition.



Tempura or deep fried

Usually seen in the form of french fries or sweet potato fries, but, Japanese cooking fries roots and tubers in a fluffy batter known as tempura.



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ENG LANG ARTS CONTENT STANDARDS

7th: Writing Strategies 1.2, 1.3
8th: Writing Strategies 1.1



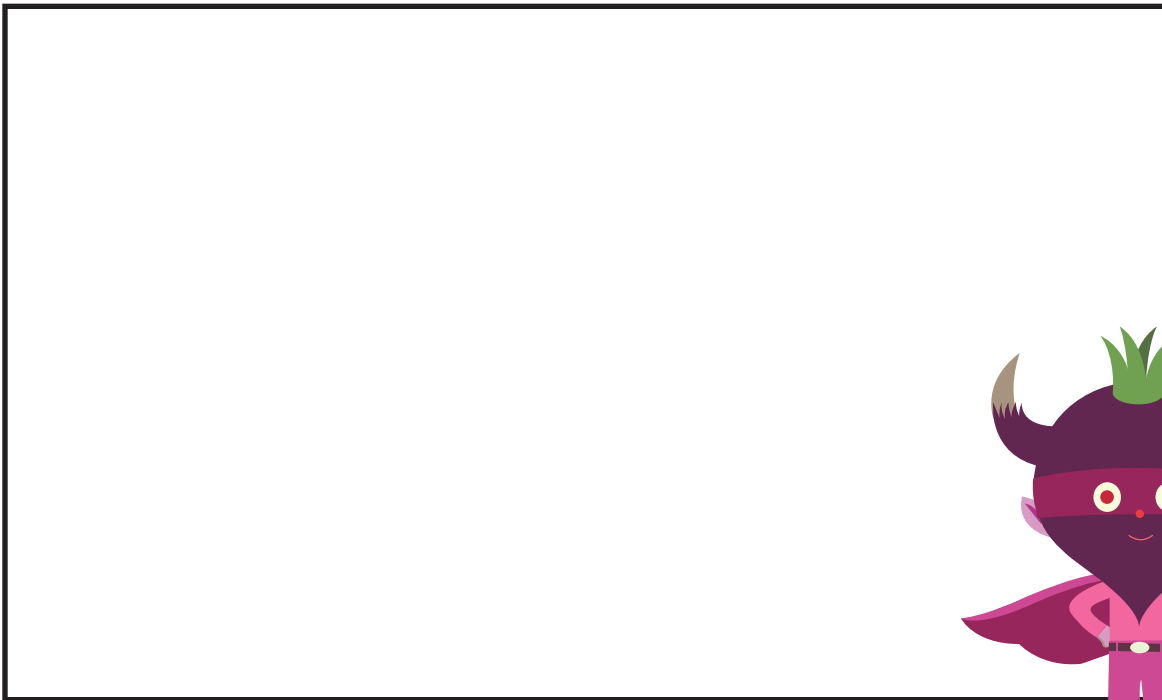
VARI“EAT”Y: HAIKU

A haiku is a Japanese poem of seventeen syllables, in three lines of five, seven, and five syllables, traditionally evoking images of the natural world.

Your teacher will assign you one of the 10 roots and tuber vegetables covered in this lesson—you will be writing a haiku describing the vegetable, and how the vegetable can be eaten. Review the information on THE ROOT FAMILY and THE TUBER FAMILY pages (also explore www.fruitsandveggiesmorematters.org > click on the “Cooking” Tab at the top > click on the “Fruit & Vegetable Recipe Search” link on the left side of the page > type the assigned vegetable in the Keyword Search box).

Afterwards, you may also draw a picture to help illustrate your haiku.

EXAMPLE: A rutabaga
oven roasted, good to eat
warms you up inside.



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ENG LANG ARTS CONTENT STANDARDS

7th: Writing Strategies 1.2

8th: Written and Oral English Language Conventions 1.1



ROOTS & TUBERS: BACK IN THE DAY

Roots and tubers have never been very fashionable; believe it or not, they were actually seen as peasant food because of their use by the poor. But roots and tubers have been an important part of the human diet throughout history because:

- they are inexpensive to produce
- can grow well in poor soil
- keep well, and can be stored for longer periods of time
- supply carbohydrates/starch (energy) necessary for survival

American colonists learned to put up with the hardships associated with their arrival in the new world, and during the Revolutionary War. They had to deal with a harsh climate, and learned to rely on hearty foods that could be stored for months, like roots, tubers, and winter squash. These “staple” foods sustained people during the non-harvest months when crops were less plentiful.

QUESTIONS:

1. The passage is best described as:
A modern day science fiction stories.
B autobiography of a group of American colonists.
C information about the role of roots and tubers in the lives of American Colonists.
D instruction on how to grow vegetables.
2. Read this sentence from the passage:
These “staple” foods sustained people during the non-harvest months when crops were less plentiful.
Which word is a synonym for staple in this sentence?
A together
B uncommon
C metal
D important
3. Based on the information given in the passage, American Colonists grew roots and tubers for all of the following reasons, except:
A they grow well, even in poor soil.
B they can be stored for longer periods of time.
C they were the only vegetables available during this time.
D they supply energy necessary for survival.
4. Read this sentence from the passage:
Roots and tubers have never been very fashionable; believe it or not, they were actually seen as peasant food because of their use by the poor.
Which word is an antonym for fashionable?
A popular
B desirable
C happening
D old-fashioned



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ROOTS & TUBERS: BACK IN THE DAY

KEY

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ENG LANG ARTS CONTENT STANDARDS

7th: Reading 1.1, 1.3
8th: Reading 1.1, 1.3



TASTE TEST: DIRECTIONS

TOOLS NEEDED

- Roasted rutabagas and baby potatoes (delivered by cafeteria)
- Plates, forks, napkins, plastic gloves (delivered by cafeteria)
- Double Bubble Map® (enclosed)
- Root & Tuber pictures (enclosed)
- *How to Pick Them* activity (enclosed)
- *Use Your Senses* sheets (enclosed)



ACTIVITY

- Have students wash their hands properly with soap (or at least rub thoroughly with hand sanitizer).
- Show the root and tuber color pictures provided. Discuss their physical, and nutritional characteristics. How are they similar? Different?
- Before tasting, ask the class to engage their senses... observing, smelling and touching the rutabagas potatoes first. Write observations on *Use Your Senses* sheets. Invite class to taste them.
- Note all of their sensory observations on the board. Observations can be recorded on the *Use Your Senses* worksheet (sample answers provided). Survey the class's opinion about the taste (see *Chart the Results* page).

ROOTS & TUBERS FILE



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TASTE TEST: LABELS

Cut out the following labels, fold in half, and place in front of the produce.

rutabaga

rutabaga

papas

potatoes



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USE YOUR SENSES

DIRECTIONS: Use these, or similar questions to engage students in thinking and talking about the senses used when tasting these vegetables. Have students make predictions beforehand. Depending on grade level, students can draw pictures, or write adjective(s) to describe the sensory experience (activity examples follow on next two pages).

Rutabagas

Potatoes



When you look at this what do you see?

- something rounded or something square?
- something smooth, or something rough?
- something purple and cream, or something blue and orange?
- something small like a marble or something large like a baseball?

When you look at this what do you see?

- something oval or something square?
- something smooth, or something rough?
- something green? something brown? something black?
- something small or something large?



When you smell this what do you see?

- something fruity? something earthy, soil-like? something aromatic? nothing at all?

When you smell this what do you see?

- something peachy? something aromatic? something like potatoes?



When you bite into this what do you hear?

- something loud and crunchy? something soft?

When you bite into this what do you hear?

- something loud and crunchy? something soft?



When you eat this what do you taste?

- something moist? something dry?
- something sweet? something sour? something salty?
- something tender? something chewy?
- something mild? something full of flavor?

When you eat this what do you taste?

- something moist? something dry?
- something sweet? something sour? something salty?
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When you touch this what do you feel?

- something hard? something soft?
- something even? something uneven?
- something heavy? something light?

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USE YOUR SENSES: DESCRIBE IT

DIRECTIONS: After tasting the roasted rutabagas and potatoes, draw pictures, or write adjective(s) to describe the experience of seeing, smelling, hearing, tasting, and feeling them.

Rutabagas

Potatoes





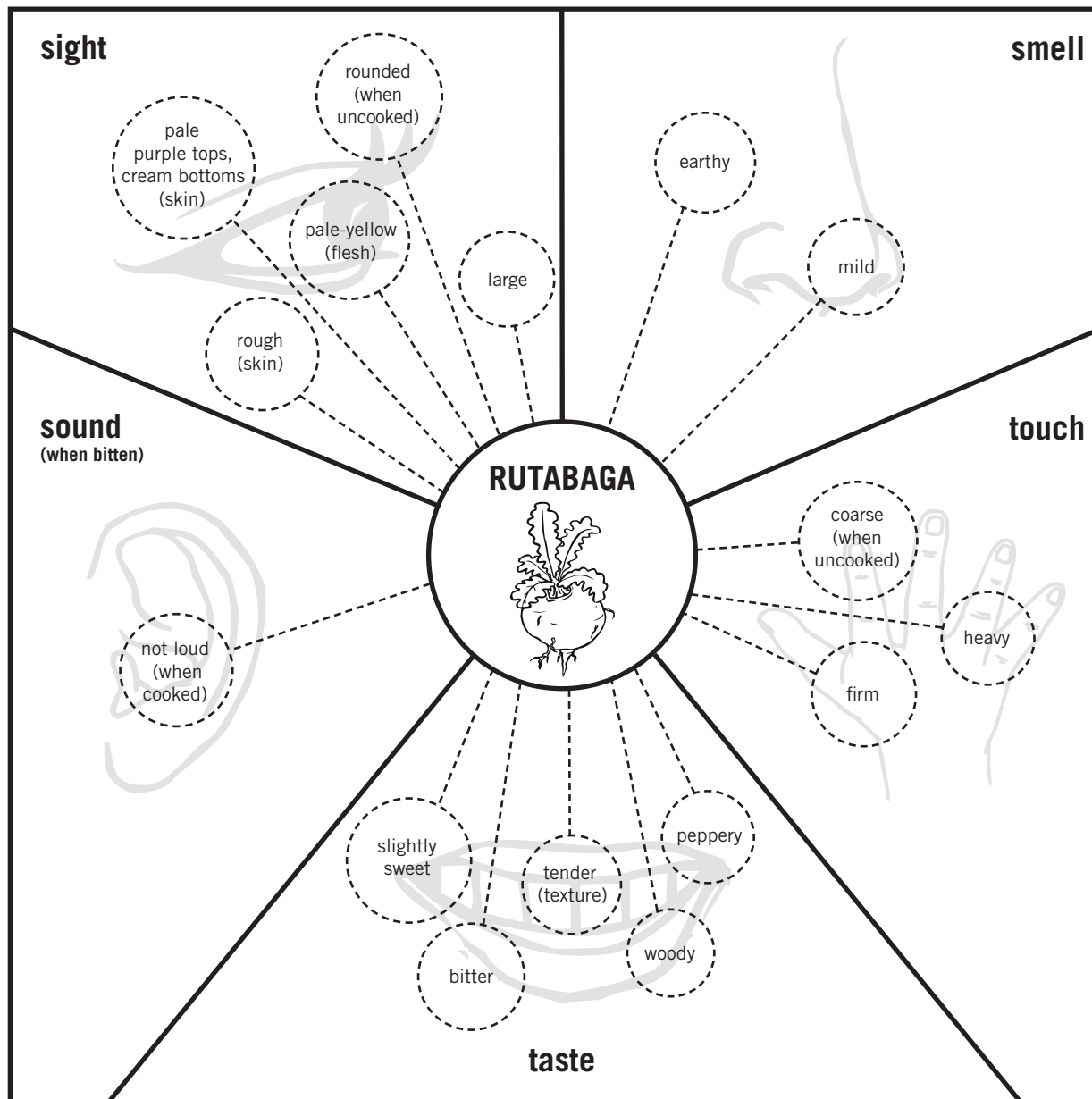
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USE YOUR SENSES

EXAMPLE BUBBLE MAP®

Sample sensory attributes of a rutabaga (cooked or uncooked) using a Bubble Map® divided among 5 senses for illustration. Consider having students use a different color for each group (sense). Lines have been placed below to show separation between the categories.



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ENG LANG ARTS CONTENT STANDARDS

7th: Reading Comp 2.3, Writing Strategies 1.2, 1.3
8th: Reading Comp 2.3

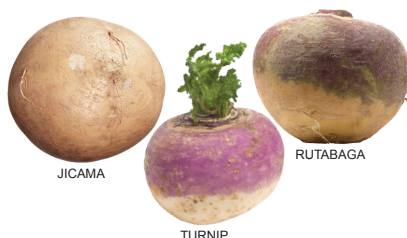


Harvest of the Month

Network for a Healthy California

The *Harvest of the Month* featured vegetables are

root vegetables



Health and Learning Success Go Hand-in-Hand

Family meals can be a great time to care for the body. Take time to set the table, eat together, and share stories. Experts agree that sharing meals may help to avoid teenage smoking, alcohol/drug abuse, and depression. Use *Harvest of the Month* recipes and serving ideas for healthy ways to enjoy root vegetables.

Produce Tips

- Select firm **jicama** that are smooth with no bruises or spots. Store in a cool, dry place for up to four months. Keep sliced jicama in a sealed plastic bag in the refrigerator for up to one week.
- Choose small- to medium-sized **turnips** that are smooth, round, and firm. Store in a cool, dry place for up to two months or in a plastic bag in the refrigerator for up to two weeks.
- Look for **rutabagas** that are heavy, smooth, round, and firm. Store in a cold, dry place for up to four months or in the refrigerator for one month.

Healthy Serving Ideas

- Look for roots like jicama, parsnips, turnips, rutabagas, and radishes at your local market.
- Peel and slice crisp jicama. Sprinkle with chili powder for a quick snack.
- Peel and cube parsnips and add to your favorite soup.
- Sauté sliced turnips, turnip greens, and chopped onions for a flavorful dish.
- Serve mashed rutabagas instead of mashed potatoes.
- Shred radishes and add to a green salad.

JICAMA PIÑA BREEZE

Makes 3 servings. 1 cup per serving.
Cook time: 10 minutes

Ingredients:

- ½ cup canned pineapple chunks with juice, packed in 100% juice
 - ½ cup fresh jicama, peeled and cut into small pieces
 - ½ cup fresh orange, peeled and cut into small pieces
 - 2 cups 100% orange juice
1. Place all ingredients in a blender container.
 2. Blend until smooth. Pour into glasses and serve immediately.

Nutrition information per serving:

Calories 117, Carbohydrate 28 g, Dietary Fiber 3 g, Protein 2 g, Total Fat 0 g, Saturated Fat 0 g, Trans Fat 0 g, Cholesterol 0 mg, Sodium 5 mg

Source: *Healthy Latino Recipes Made with Love, Network for a Healthy California, 2008.*

For more recipes, visit:
www.cachampionsforchange.net

Let's Get Physical!

- **At work:** Stretch with co-workers to help relax during your break.
- **At school:** Encourage your child to start a walking group during recess. They can talk while they walk!
- **With the family:** Play touch football or tag this weekend.

Gardening, doing yard work, vacuuming, sweeping – all types of physical activity count towards your daily needs!

To find out how much activity you and your family need, visit:

www.cdc.gov/physicalactivity

Nutrition Facts

Serving Size: ½ cup raw jicama, sliced (60g)

Calories 23 Calories from Fat 0

% Daily Value

Total Fat 0g 0%

Saturated Fat 0g 0%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 2mg 0%

Total Carbohydrate 5g 2%

Dietary Fiber 3g 12%

Sugars 1g

Protein 0g

Vitamin A 0% Calcium 1%

Vitamin C 20% Iron 2%

How Much Do I Need?

- A ½ cup of sliced jicama, turnips, or rutabagas is about one cupped handful.
- A ½ cup of most root vegetables is an excellent source of vitamin C.
- Root vegetables are rich in complex carbohydrates, or starch, which give your body energy, especially for the brain and nervous system.
- Most people should get over half of their calories from complex carbohydrates. Good sources include fruits, vegetables, and whole grains.

The amount of fruits and vegetables you need depends on your age, gender, and physical activity level. Encourage your family to try a variety of colorful fruits and vegetables every day. It will help them reach their recommended daily amounts.

Recommended Daily Amounts of Fruits and Vegetables*

	Kids, Ages 5-12	Teens and Adults, Ages 13 and up
Males	2½ - 5 cups per day	4½ - 6½ cups per day
Females	2½ - 5 cups per day	3½ - 5 cups per day

*If you are active, eat the higher number of cups per day. Visit www.mypyramid.gov to learn more.

What's in Season?

Roots – like jicama, turnips, rutabagas, radishes, and parsnips – are in peak season in late spring through fall.

Try these other good or excellent sources of complex carbohydrates for energy: corn, dry beans, peas, and sweet potatoes.



THE ROBUST* ROOTS & TUBERS

September's Harvest Hero

*'rō' bəstl - strong and healthy; vigorous



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